

In re Patent Application of:

JAMES MENTZ ET AL.

Serial No. 10/669,133

Filing Date: 9/23/2003

In the Claims:

1. (currently amended): A power-line communication system, comprising:

a communication device for receiving and transmitting communication signals;
a power supply connected between a power-line and the communication device for supplying power to the communication device; and

coupling means ~~with~~ within the power supply for facilitating transmission of both line power and the communication signals, wherein an analog communication signal flows passively to the communication device through the power supply.
2. (original): The system recited in Claim 1 wherein the coupling means facilitates transmission of both line power and the communication signals along a single connection.
3. (original): The system recited in Claim 2 wherein the coupling means comprises a high pass filter for transmitting the communication signals and rejecting power-line frequencies.
4. (original): The system recited in Claim 3 further comprising means providing transient protection for the communication device.
5. (original): The system recited in Claim 1 further comprising means for injecting the communication signals onto a ground-free, low voltage direct-current path.
6. (original): The system recited in Claim 5 further comprising a redundant ground-free low voltage direct-current path.

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7. (original): The system recited in Claim 1 wherein the power supply comprises a transformer having a center tap to extract a low-voltage direct-current component without shorting the communication signals.

8. (new): A power-line communication system, comprising:

a communication device for receiving and transmitting communication signals;

a power supply connected between a power-line and the communication device for supplying power to the communication device; and

coupling means within the power supply for facilitating transmission of both line power and the communication signals, wherein an analog communication signal flows passively to the communication device through the power supply, and wherein the analog communication signal and power output from the power supply are combined for transmission of both line power and the communication signal along a single connection.

9. (new): The system recited in Claim 8 wherein the coupling means comprises a high pass filter for transmitting the communication signals and rejecting power-line frequencies.

10. (new): The system recited in Claim 9 further comprising means providing transient protection for the communication device.

11. (new): The system recited in Claim 8 further comprising means for injecting the communication signals onto a ground-free, low voltage direct-current path.

12. (new): The system recited in Claim 11 further comprising a redundant ground-free low voltage direct-current path.

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13. (new): The system recited in Claim 8 wherein the power supply comprises a transformer having a center tap to extract a low-voltage direct-current component without shorting the communication signals.